

Appl. No. 10/798,299

Reply to Office Action of: May 5, 2006

### **Amendments to the Claims**

This listing of claims will replace all prior versions and listings of claims in the application:

#### **Listing of claims:**

1. (previously presented) A medical imaging system comprising a patient support surface; and an imaging apparatus, said imaging apparatus having a chamber to receive a portion of a patient to be imaged, and a support table located within said support surface, said support table having an aperture to permit positioning of said portion in said chamber and being adjustable relative to said support surface to be located above said surface and thereby engage said portion of said patient to be imaged.
2. (cancelled)
3. (previously presented) A medical imaging system according to claim 1 wherein a sensor is provided on said table to indicate orientation of said patient.
4. (original) A medical imaging system according to claim 3 wherein a pair of sensors is provided at diametrically opposed locations for detection of body orientation.
5. (previously presented) An ultrasound scanner assembly comprising a base, a drum rotating on said base for receiving a portion of a patient to be imaged, a transducer head rotating with said drum and displaced relative to said drum along an axis parallel to the axis of rotation, said head including a plurality of transducers each operable to propagate a wave along an axis of propagation and to receive signals from respective focal zones spaced relative to one another along said axis of propagation.
6. (original) A scanner assembly according to claim 5 wherein said axis of propagation is inclined to said axis of rotation.

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7. (original) A scanner assembly according to claim 6 wherein said axis of propagation is inclined at an angle generally orthogonal to the average target surface of a portion of a patient within said drum.
8. (original) A scanner assembly according to claim 6 wherein said angle of propagation is between 65° and 55° to said axis of rotation.
9. (original) A scanner assembly according to claim 8 wherein said angle of propagation is 60° to said axis of rotation.
10. (original) A scanner assembly according to claim 5 wherein said zones are located at a portion of said wave remote from the transducer and said angle of propagation permits insonification of a region beyond said drum.
11. (original) A scanner assembly according to claim 7 wherein said transducers are interfaced to and controlled by an electronic circuit mounted on said drum for rotation therewith.
12. (original) A scanner assembly according to claim 11 wherein said electronic circuit includes an amplifier to adjust the gain of signals received by respective ones of said transducer.
13. (original) A scanner assembly according to claim 7 wherein said transducers are located in a channel in fluid communication with said drum.
14. (original) A scanner assembly according to claim 7 including an encoder to indicate the position of said drum about the axis and thereby control operation of said transducers at predetermined intervals.
15. (previously presented) A scanner assembly according to claim 14 wherein said encoder includes a registration position and movement of said transducer head relative to said drum is initiated upon attaining said registration position.

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16. (previously presented) A scanner assembly according to claim 5 including a signal indicative of a limit of movement of said transducer head relative to said drum.

17. (original) A scanner assembly according to claim 5 including a data transfer interface to transfer data over a network to a recipient.

18. (original) A scanner assembly according to claim 5 wherein said focal zones overlap and data from each signal in overlapping portions of said focal zones is compared to conform said signals to a common base.

19. (original) A scanner assembly according to claim 18 wherein each of said signals is adjusted for attenuation in said overlapping portions prior to comparison.

20. (previously presented) A scanner assembly according to claim 18 wherein an attenuation profile is obtained from an evaluation of data collected during a scan to apply to said signals.

21. (currently amended) A method of monitoring a medical condition through insonification with ultrasound by locating a portion of a patient in a chamber in a scanner in a predetermined position using an adjustment mechanism to permit acquisition of data in a repeatable manner by imaging the portion positioned in the chamber, conducting a succession of scans of an area of interest of the patient at predetermined intervals while substantially maintaining said predetermined position using said adjustment mechanism, transferring the scans to a remote location, and comparing time separated scans to determine changes in said medical condition.